

Input Set : A:\sequence listing.txt
Output Set: N:\CRF3\01082002\1686964.raw

**ENTERED** 3 <110> APPLICANT: Maertens, Geert Bosman, Alfons Sablon, Erwin 5 Zrein, Maan 8 <120> TITLE OF INVENTION: IMPROVED IMMUNODIAGNOSTIC ASSAYS USING REDUCING AGENTS 10 <130> FILE REFERENCE: 2551-48 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/686,964 C--> 13 <141> CURRENT FILING DATE: 2000-10-27 15 <150> PRIOR APPLICATION NUMBER: PCT/EP99/02547 16 <151> PRIOR FILING DATE: 1999-04-15 18 <150> PRIOR APPLICATION NUMBER: EP 98870087.8 19 <151> PRIOR FILING DATE: 1998-04-17 21 <160> NUMBER OF SEQ ID NOS: 38 23 <170> SOFTWARE: PatentIn Ver. 2.0 26 <210> SEQ ID NO: 1 27 <211> LENGTH: 36 28 <212> TYPE: DNA 29 <213> ORGANISM: Hepatitis C virus 31 <400> SEQUENCE: 1 32 gggccccacc atgggggttg cgaaggcggt ggactt 36 35 <210> SEQ ID NO: 2 36 <211> LENGTH: 35 37 <212> TYPE: DNA 38 <213> ORGANISM: Hepatitis C virus 40 <400> SEQUENCE: 2 41 ctattagctg aaagtcgact gtctgggtga cagca 35 44 <210> SEQ ID NO: 3 45 <211> LENGTH: 279 46 <212> TYPE: PRT 47 <213> ORGANISM: Hepatitis C virus 49 <400> SEQUENCE: 3 50 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Asn Leu Glu 53 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala 20 25 56 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser 59 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Phe Lys 55 62 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala 70 75 65 Tyr Met Ser Arg Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val 90 68 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys 105 71 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Met Ile

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74 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly 135 77 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu 150 155 80 Ala Thr Ala Ala Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile 165 170 83 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys 185 86 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg His Leu Ile Phe Cys 200 195 89 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Thr Ala Leu 215 92 Gly Val Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile 230 235 95 Pro Thr Ser Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr 245 250 98 Gly Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val 265 260 101 Thr Gln Thr Val Asp Phe Ser 275 106 <210> SEQ ID NO: 4 107 <211> LENGTH: 279 108 <212> TYPE: PRT 109 <213> ORGANISM: Hepatitis C virus. 111 <400> SEQUENCE: 4 112 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Asn Leu Glu 10 115 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala 118 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser 121 Gly Lys Ser Thr Thr Val Pro Ala Val Tyr Ala Ala Gln Gly Phe Lys 55 124 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala 127 Tyr Met Ser Arg Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val 90 130 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys 100 105 110 133 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile 120 136 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly 135 139 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu 155 142 Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile 165 170 145 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys 185

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148 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg Arg Leu Ile Phe Cys
                                200
151 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Thr Ala Leu
        210
                            215
154 Gly Val Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile
                        230
                                            235
157 Pro Thr Ser Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr
                    245
                                         250
160 Gly Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val
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161
                                    265
163 Thr Gln Thr Val Asp Phe Ser
            275
164
168 <210> SEQ ID NO: 5
169 <211> LENGTH: 279
170 <212> TYPE: PRT
171 <213> ORGANISM: Hepatitis C virus
173 <400> SEQUENCE: 5
174 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu
175
                                         10
177 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala
                 20
                                     25
180 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
                                 40
183 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Gly Gln Gly Tyr Lys
        50
186 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Leu Gly Ala
187 65
                         70
189 Tyr Met Ser Lys Val His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val
                                         90
192 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys
               100
                                    105
195 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile
           115
                                120
                                                    125
198 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly
       130
                            135
201 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
                        150
                                            155
204 Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile
207 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Cys Gly Lys
                180
                                    185
210 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg His Leu Ile Phe Cys
                                200
213 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Asn Leu Val Ala Leu
       210
                            215
216 Gly Val Asn Pro Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile
217 225
                        230
                                            235
219 Pro Thr Ser Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr
220
                    245
                                        250
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                                    265
225 Thr Gln Thr Val Asp Phe Ser
226
            275
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231 <211> LENGTH: 279
232 <212> TYPE: PRT
233 <213> ORGANISM: Hepatitis C virus
235 <400> SEQUENCE: 6
236 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu
239 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala
                 20
                                     25
242 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
                                 40
245 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys
                             55
248 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala
                                             75
                         70
251 Tyr Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val
254 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys
257 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile
                                120
260 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly
                            135
263 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
264 145
                        150
                                            155
266 Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile
                    165
                                        170
269 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys
                                    185
                180
272 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg His Leu Ile Phe Cys
                                200
275 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Pro Val Ala Leu
278 Gly Val Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Pro Val Ile
                                            235
                        230
281 Pro Thr Ser Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr
                    245
                                        250
284 Gly Phe Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val
                                    265
285
                260
                                                         270
287 Thr Gln Thr Val Asp Phe Ser
           275
288
292 <210> SEQ ID NO: 7
293 <211> LENGTH: 279
294 <212> TYPE: PRT
295 <213> ORGANISM: Hepatitis C virus
```

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207	-401	n	EQUE	MCE.	7											
						3 1 a	370 7	N	Dh.	<b>T1</b> -	D	**- 1	<b>a</b> 1	<b>G</b>	T	<b>a</b> 1
		GIY	Val	Ald		Ald	Val	Asp	Phe		Pro	Val	GIU	ser		GIU
299		m1			5		**- 1	<b>51</b> .	m1	10					15	
	Thr	Thr	Met		Ser	Pro	Val	Phe	Thr	Asp	Asn	Ser	Ser		Pro	Ala
302				20					25			_		30		
	Val	Pro		Ser	Phe	Gln	Val		His	Leu	His	Ala		Thr	Gly	Ser
305			35					40					45			
307	Gly	Lys	Ser	Thr	Lys	Val	Pro	Ala	Ala	Tyr	Ala	Ala	Gln	Gly	Tyr	Lys
308		50					55					60				
310	Val	Leu	Val	Leu	Asn	Pro	Ser	Val	Ala	Ala	Thr	Leu	Gly	Phe	Gly	Ala
311	65					70					75					80
313	Tyr	Met	Ser	Lys	Ala	His	Gly	Ile	Asp	Pro	Asn	Ile	Arg	Thr	Gly	Val
314					85					90					95	
316	Arq	Thr	Ile	Thr	Thr	Gly	Ser	Pro	Ile	Thr	Tyr	Ser	Thr	Tyr	Gly	Lys
317	•			100		•			105		•			110	•	•
319	Phe	Leu	Ala	Asp	Glv	Glv	Cvs	Ser	Gly	Glv	Ala	Tvr	Asp	Ile	Ile	Ile
320			115		1	1	-1-	120	1	1		-1-	125			
	Cve	Asn		Cvs	His	Ser	Thr		Ala	Thr	Ser	Tle		Δsn	Tle	Glv
323	Cyb	130	014	Cyb	1115	DCI	135	1106		1114	DCI	140	LCu	p	110	GI,
	Thr		Lou	Nan	Cln	λla		Thr	Ala	Gl <sub>W</sub>	λla		LOU	Wa 1	Val	LOU
	145	Val	пец	ush	GIII	150	GIU	1111	AIG	GIY	155	AIG	ьец	Val	val	160
		Пhъ	<b>3</b> 1 -	mh	Dmo		<b>a</b> 1	C ~ ~	Val	mh.~		D	17-1-0	Dwa	3.00	
	Ата	THE	Ald	THE		PIO	GLY	261	Val		Agt	PIO	HIS	PTO		TTE
329	<b>a1</b>	<b>a1</b>	17-1	. 1 -	165	<b>a</b>	m\	m1	<b>a</b> 1	170	-1.	<b>5</b>	n1	m	175	<b>-</b>
	GIU	GIU	vaı		ьeu	ser	Thr	Thr	Gly	GIU	тте	Pro	Pne	-	GTĀ	ràs
332				180					185					190		
	Ala	He		Leu	Glu	Ala	He	_	Gly	GLY	Arg	His		He	Phe	Cys
335			195					200		_	_		205	_		
	His		Lys	Lys	Lys	Cys		Glu	Leu	Ala	Ala	_	Leu	Val	Ala	Leu
338		210					215					220				
		Val	Asn	Ala	Val		$\mathtt{Tyr}$	$\mathtt{Tyr}$	Arg	Gly		Asp	Val	Ser	Val	Ile
	225					230					235					240
	Pro	Thr	Ser	Gly	Asp	Val	Val	Val	Val		Thr	Asp	Ala	Leu	Met	${ t Thr}$
344					245					250					255	
346	Gly	Phe	Thr		Asp	Phe	Asp	Ser	Val	Ile	Asp	Cys	Asn	Thr	Cys	Val
347				260					265					270		
349	Thr	Gln	Thr	Val	Asp	Phe	Ser									
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355	<211> LENGTH: 279															
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361	1	4			5		·	E		10					15	
		Thr	Met	Arσ	Ser	Pro	Va 1	Phe	Thr		Asn	Ser	Ser	Pro		Δla
364				20					25					30		
	Va1	Pro	Gln		Dho	Gln	Va 1	Δla	His	T.eu	Hic	Δla	Prò	-	Glv	Ser
367	+ u.r	110	35	JUL	FIIG	O T 11	7 U.I	40	1113	LGU	mrs	лта	45	1111	GIY	SET
	G1 v	Lve		Πþ∽	Lare	17 p 1	Dro		λla	Фттъ	λΙα	λΊъ		c1	Пт∙∽	Two
202	GTA	πλ¤	26T	TIIT	пÃЭ	AGT	LIO	wra	Ala	TAT	MIG	WIG	OTII	GTÀ	T ÅT.	nys

VERIFICATION SUMMARY

DATE: 01/08/2002

PATENT APPLICATION: US/09/686,964

TIME: 16:16:29

Input Set : A:\sequence listing.txt
Output Set: N:\CRF3\01082002\1686964.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date